

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1.-29. (Canceled)

30. (Previously presented) An injectable pharmaceutical product, comprising:

an agent which comprises an insoluble carrier bound to a peptide, wherein:

- (i) the peptide has affinity for, and is capable of non-covalent binding to, fibrinogen,
- (ii) the peptide is not fibrinogen, and
- (iii) when fibrinogen is non-covalently bound to the agent, the agent binds via said non-covalently bound fibrinogen to activated platelets in preference to inactive platelets.

31. (Previously presented) The injectable pharmaceutical product of claim 30 wherein, upon intravenous administration to a patient having a wound site which comprises activated platelets, the peptide non-covalently binds to fibrinogen and said non-covalently bound fibrinogen preferentially becomes involved in blood clot formation at the wound site.

32. (Previously presented) The injectable pharmaceutical product of claim 30 wherein the peptide comprises a sequence obtained from a fibrinogen-binding region of a platelet membrane glycoprotein, said platelet membrane glycoprotein being

selected from the group consisting of platelet membrane glycoprotein GPIIb and platelet membrane glycoprotein GPIIIa.

33. (Previously presented) The injectable pharmaceutical product of claim 32 wherein the sequence obtained from a fibrinogen-binding region of a platelet membrane glycoprotein comprises TDVNGDGRHDL (SEQ ID NO:6) or a variant thereof.

34. (Currently amended) The injectable pharmaceutical product of claim 33 wherein the variant comprises a sequence that is selected from the group consisting of T(D,E)VNG(D,E)GRH(D,E)L (~~SEQ ID NO: 27~~) (SEQ ID NO: 28), TD(V,L)NGDGRHDL (~~SEQ ID NO: 29~~) (SEQ ID NO: 29), TDV(N,Q)GDGRHDL (~~SEQ ID NO: 30~~) (SEQ ID NO: 30) and TDVNGDG(R,K)HDL (~~SEQ ID NO: 31~~) (SEQ ID NO: 31).

35. (Previously presented) The injectable pharmaceutical product of claim 30 wherein the peptide comprises TDVNGDGRHDL (SEQ ID NO:6).

36. (Currently amended) The injectable pharmaceutical product of claim 30 wherein the peptide comprises as an amino terminus the sequence Gly-(Pro/His)-Arg-Xaa (~~SEQ ID NO:24~~) (SEQ ID NO: 36), wherein Xaa is any amino acid.

37. (Currently amended) The injectable pharmaceutical product of claim 30 wherein the peptide comprises as an amino terminus the sequence Gly-(Pro/His)-Arg-Xaa (~~SEQ ID NO:24~~) (SEQ ID NO: 36), wherein Xaa is selected from the group consisting of Pro, Sar, Gly and Val.

38. (Currently amended) The injectable pharmaceutical product of claim 30 wherein

(a) the peptide comprises a sequence obtained from a fibrinogen-binding region of a platelet membrane glycoprotein, said platelet membrane glycoprotein being selected from the group consisting of platelet membrane glycoprotein GPIIb and platelet membrane glycoprotein GPIIIa, and

(b) the peptide comprises as an amino terminus the sequence Gly-(Pro/His)-Arg-Xaa (~~SEQ ID NO: 24~~) (SEQ ID NO: 36), wherein Xaa is any amino acid.

39. (Previously presented) The injectable pharmaceutical product of claim 38 wherein Xaa is selected from the group consisting of Pro, Sar, Gly or Val.

40. (Currently amended) The injectable pharmaceutical product of claim 30 wherein

(a) the peptide comprises an amino acid sequence that is selected from the group consisting of TDVNGDGRHDL (SEQ ID NO: 6), T(D,E)VNG(D,E)GRH(D,E)L (~~SEQ ID NO: —~~) (SEQ ID NO: 28), TD(V,L)NGDGRHDL (~~SEQ ID NO: —~~) (SEQ ID NO: 29), TDV(N,Q)GDGRHDL (~~SEQ ID NO: —~~) (SEQ ID NO: 30) and TDVNGDG(R,K)HDL (~~SEQ ID NO: —~~) (SEQ ID NO: 31), and

(b) the peptide comprises as an amino terminus the sequence Gly-(Pro/His)-Arg-Xaa (~~SEQ ID NO: 24~~) (SEQ ID NO: 36), wherein Xaa is any amino acid.

41. (Previously presented) The injectable pharmaceutical product of claim 40 wherein Xaa is selected from the group consisting of Pro, Sar, Gly or Val.

42. (Previously presented) The injectable pharmaceutical product according to any one of claims 30 and 32-36 wherein the peptide has from 4 to 200 amino acids.

43. (Previously presented) The injectable pharmaceutical product according to any one of claims 30 and 32-36 wherein the carrier has a size suitable to ensure transmission of the agent through the lung capillary bed.

44. (Previously presented) The injectable pharmaceutical product according to any one of claims 30 and 32-36 wherein the carrier is selected from the group consisting of a microparticle, a protein microparticle and an albumin microparticle.

45. (Previously presented) The injectable pharmaceutical product according to any one of claims 32-34 and 36 wherein the product comprises a population of carriers of which less than 2% are in excess of 6  $\mu\text{m}$  as a maximum dimension.

46. (Previously presented) The injectable pharmaceutical product according to claim 45 wherein the majority of carriers are from 2 to 4  $\mu\text{m}$  as a maximum dimension.

47. (Previously presented) The injectable pharmaceutical product according to any one of claims 32-34 and 36 wherein the peptide is bound to the carrier by a covalent bond.

48. (Previously presented) The injectable pharmaceutical product according to any one of claims 32-34 and 36 wherein the peptide is bound to the carrier

by a covalent bond, wherein the peptide comprises a cysteine which comprises a –SH group and the carrier comprises a thiol reactive group, and wherein the peptide is bound to the carrier by linking the-SH group of the cysteine to the thiol reactive group on the carrier.

49. (Previously presented) An injectable pharmaceutical product, comprising:
- an agent which comprises
    - (a) an insoluble carrier bound to a peptide; and
    - (b) fibrinogen or a fragment or variant thereof non-covalently bound to the peptide of (a), said fibrinogen or fragment or variant thereof having an inducible platelet-aggregating activity, wherein:
      - (i) the peptide of (a) has affinity for, and is capable of non-covalent binding to, fibrinogen,
      - (ii) the peptide of (a) is not fibrinogen, and
      - (iii) the agent binds to activated platelets in preference to inactive platelets via said non-covalently bound fibrinogen or fragment or variant thereof.
50. (Currently amended) The injectable pharmaceutical product of claim 49, wherein the peptide of (a) is selected from the group consisting of:
- (i) a peptide that comprises a sequence obtained from a fibrinogen-binding region of a platelet membrane glycoprotein, said platelet membrane glycoprotein being selected from the group consisting of platelet membrane glycoprotein GPIIb and platelet membrane glycoprotein GPIIIa,
  - (ii) a peptide that comprises a sequence obtained from a fibrinogen-binding region of platelet membrane glycoprotein GPIIb or platelet membrane

glycoprotein GPIIIa, said sequence comprising TDVNGDGRHDL (SEQ ID NO:6) or a variant thereof,

(iii) a sequence that is selected from the group consisting of T(D,E)VNG(D,E)GRH(D,E)L (~~SEQ ID NO: 27~~) (SEQ ID NO: 28), TD(V,L)NGDGRHDL (~~SEQ ID NO: 28~~) (SEQ ID NO: 29), TDV(N,Q)GDGRHDL (~~SEQ ID NO: 29~~) (SEQ ID NO: 30) and TDVNGDG(R,K)HDL (~~SEQ ID NO: 30~~) (SEQ ID NO: 31),

(iv) a peptide that comprises TDVNGDGRHDL (SEQ ID NO:6),

(v) a peptide according to any one of (i) through (iv) which comprises as an amino terminus the sequence Gly-(Pro/His)-Arg-Xaa (~~SEQ ID NO:24~~) (SEQ ID NO: 36), wherein Xaa is any amino acid, and

(vi) a peptide according to any one of (i) through (iv) which comprises as an amino terminus the sequence Gly-(Pro/His)-Arg-Xaa (~~SEQ ID NO:24~~) (SEQ ID NO: 36), wherein Xaa is selected from the group consisting of Pro, Sar, Gly and Val.

51. (Previously presented) An injectable pharmaceutical product, comprising:

- (a) an insoluble carrier;
- (b) a peptide having affinity for fibrinogen; and
- (c) fibrinogen or a variant or fragment thereof non-covalently bound to the peptide of (b),

wherein the fibrinogen or variant or fragment thereof of (c) binds to activated platelets in preference to inactive platelets.

52. (Previously presented) The injectable pharmaceutical product according to claim 51 wherein, upon intravenous administration to a patient having a

wound site which comprises activated platelets, the fibrinogen or variant or fragment thereof of (c) preferentially becomes involved in blood clot formation at the wound site.

53. (Previously presented) A method of preparing an injectable pharmaceutical product, comprising:

mixing an agent with fibrinogen, or a variant or fragment thereof, under conditions and for a time sufficient to non-covalently bind the fibrinogen or variant or fragment thereof to the agent, and thereby preparing the injectable pharmaceutical product,

wherein the agent comprises an insoluble carrier bound to a peptide that is not fibrinogen, said peptide having affinity for and being capable of non-covalent binding to fibrinogen,

and wherein the agent binds to activated platelets in preference to inactive platelets via said non-covalently bound fibrinogen or fragment or variant thereof.

54. (Previously presented) The method of claim 53 further comprising at least one step that is selected from the group consisting of (a) removing unbound fibrinogen; (b) formulating the product with a pharmaceutically acceptable carrier or diluent ; (c) diluting the product to provide a pharmaceutically acceptable unit dose; (d) sterilizing the product; and (e) ensuring product sterility throughout steps (a) to (c).

55. (Previously presented) A method of promoting haemostasis or treating thrombocytopenia in an individual, comprising administering to the individual a pharmaceutically effective dosage of an injectable product, wherein the product comprises an agent which comprises an insoluble carrier bound to a peptide, wherein:

(i) the peptide has affinity for, and is capable of non-covalent binding to, fibrinogen,

(ii) the peptide is not fibrinogen, and  
(iii) when fibrinogen is non-covalently bound to the agent, the agent binds to activated platelets in preference to inactive platelets.

56. (Currently amended) The method of claim 55, wherein the peptide is selected from the group consisting of:

(i) a peptide that comprises a sequence obtained from a fibrinogen-binding region of a platelet membrane glycoprotein, said platelet membrane glycoprotein being selected from the group consisting of platelet membrane glycoprotein GPIIb and platelet membrane glycoprotein GPIIIa,

(ii) a peptide that comprises a sequence obtained from a fibrinogen-binding region of platelet membrane glycoprotein GPIIb or platelet membrane glycoprotein GPIIIa, said sequence comprising TDVNGDGRHDL (SEQ ID NO:6) or a variant thereof,

(iii) a sequence that is selected from the group consisting of T(D,E)VNG(D,E)GRH(D,E)L (~~SEQ ID NO: 27~~) (SEQ ID NO: 28), TD(V,L)NGDGRHDL (~~SEQ ID NO: 29~~) (SEQ ID NO: 29), TDV(N,Q)GDGRHDL (~~SEQ ID NO: 30~~) (SEQ ID NO: 30) and TDVNGDG(R,K)HDL (~~SEQ ID NO: 31~~) (SEQ ID NO: 31),

(iv) a peptide that comprises TDVNGDGRHDL (SEQ ID NO:6),

(v) a peptide according to any one of (i) through (iv) which comprises as an amino terminus the sequence Gly-(Pro/His)-Arg-Xaa (~~SEQ ID NO:24~~) (SEQ ID NO: 36), wherein Xaa is any amino acid, and

(vi) a peptide according to any one of (i) through (iv) which comprises as an amino terminus the sequence Gly-(Pro/His)-Arg-Xaa (~~SEQ ID NO:24~~) (SEQ ID NO: 36), wherein Xaa is selected from the group consisting of Pro, Sar, Gly and Val.



57. (Previously presented) A method of promoting haemostasis or treating thrombocytopenia in an individual, comprising administering to the individual a pharmaceutically effective dosage of an injectable product, wherein the product comprises an agent which comprises

- (a) an insoluble carrier bound to a peptide; and
- (b) fibrinogen or a fragment or variant thereof non-covalently bound to the peptide of (a), said fibrinogen or fragment or variant thereof having an inducible platelet-aggregating activity, wherein:
  - (i) the peptide of (a) has affinity for, and is capable of non-covalent binding to, fibrinogen,
  - (ii) the peptide of (a) is not fibrinogen, and
  - (iii) the agent binds to activated platelets in preference to inactive platelets via said non-covalently bound fibrinogen or fragment or variant thereof.

58. (Currently amended) The method of claim 57, wherein the peptide of (a) is selected from the group consisting of:

- (i) a peptide that comprises a sequence obtained from a fibrinogen-binding region of a platelet membrane glycoprotein, said platelet membrane glycoprotein being selected from the group consisting of platelet membrane glycoprotein GPIIb and platelet membrane glycoprotein GPIIIa,
- (ii) a peptide that comprises a sequence obtained from a fibrinogen-binding region of platelet membrane glycoprotein GPIIb or platelet membrane glycoprotein GPIIIa, said sequence comprising TDVNGDGRHDL (SEQ ID NO:6) or a variant thereof,
- (iii) a sequence that is selected from the group consisting of  
T(D,E)VNG(D,E)GRH(D,E)L (~~SEQ ID NO: 27~~) (SEQ ID NO: 28),  
TD(V,L)NGDGRHDL (~~SEQ ID NO: 28~~) (SEQ ID NO: 29), TDV(N,Q)GDGRHDL (~~SEQ~~

~~ID NO: —~~) (SEQ ID NO: 30) and TDVNGDG(R,K)HDL (~~SEQ ID NO: —~~) (SEQ ID NO: 31),

- (iv) a peptide that comprises TDVNGDGRHDL (SEQ ID NO:6),
- (v) a peptide according to any one of (i) through (iv) which comprises as an amino terminus the sequence Gly-(Pro/His)-Arg-Xaa (~~SEQ ID NO:24~~) (SEQ ID NO: 36), wherein Xaa is any amino acid, and
- (vi) a peptide according to any one of (i) through (iv) which comprises as an amino terminus the sequence Gly-(Pro/His)-Arg-Xaa (~~SEQ ID NO:24~~) (SEQ ID NO: 36), wherein Xaa is selected from the group consisting of Pro, Sar, Gly and Val.

59. (Previously presented) The method of either claim 56 or claim 58 wherein the individual is selected from the group consisting of

- (i) a patient having a platelet count that is below  $400 \times 10^9/l$ ,
- (ii) a patient having a platelet count that is below  $150 \times 10^9/l$ ,
- (iii) a patient having a platelet count that is below  $10 \times 10^9/l$ ,
- (iv) a patient having an inherited or drug-induced disorder in number or function of platelets,
- (v) a patient having mechanically damaged platelets, and
- (vi) a patient having a failure in bone marrow platelet production.

60. (Previously presented) The method of either claim 56 or claim 58 wherein the individual is a patient having a failure in bone marrow platelet production that is caused by at least one of a blood cancer, a cytotoxic chemotherapy and a radiotherapy.